

September 1, 2005

Mr. L. M. Stinson
Vice President- Farley Project
Southern Nuclear Operating
Company, Inc.
P.O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2 - RESPONSE TO NUCLEAR REGULATORY COMMISSION BULLETIN 2003-02, "LEAKAGE FROM REACTOR PRESSURE VESSEL LOWER HEAD PENETRATIONS AND REACTOR COOLANT PRESSURE BOUNDARY INTEGRITY" (TAC NO. MC0538)

Dear Mr. Stinson:

On August 21, 2003, the Nuclear Regulatory Commission (NRC) issued NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity," to the industry. This bulletin informed addressees that current methods of inspecting the reactor pressure vessel (RPV) lower heads may need to be supplemented with bare-metal visual inspections in order to detect reactor coolant pressure boundary leakage. The bulletin also requested these addressees to provide the NRC with information related to inspections that have been performed to verify the integrity of the RPV lower head penetrations.

The bulletin requested that addressees provide a description of the RPV lower head penetration inspection program that would be implemented at their respective plants during the next and subsequent refueling outages. This description was to include the extent of the inspection, the inspection methods to be used, the qualification standards for the inspection methods, the process used to resolve the source of findings of boric acid deposits or corrosion, the inspection documentation to be generated, and the basis for concluding that their plant satisfied applicable regulatory requirements related to the structural and leakage integrity of the RPV lower head penetrations.

By letter dated September 19, 2003, Southern Nuclear Operating Company (SNC, the licensee) provided its response to this request for Joseph M. Farley Nuclear Plant (FNP), Unit 1. SNC stated that it wanted to take credit for the bare-metal visual examination that was performed during the spring 2003 refueling outage at FNP, Unit 1. In its same response, SNC indicated that the schedule and extent of subsequent inspections, beyond the spring 2004 refueling outage, will depend upon the results of the visual examinations performed at FNP, Unit 2 and Vogtle Electric Generating Plant, Units 1 and 2, the results of the root cause analysis of the RPV lower head penetration leakage at South Texas Project, Unit 1, and future industry experience. The NRC staff notes that there are a number of ongoing industry and NRC staff activities related to developing criteria for RPV lower head penetration inspections. The NRC staff expects that the criteria for these inspections will involve periodic bare-metal visual examinations or their equivalent.

The bulletin also requested that addressees provide a summary of the RPV lower head penetration inspection that was performed at their plants, the extent of the inspection and the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

In its letters dated June 30, and September 19, 2003, SNC provided a summary of its inspection results for the spring 2003 refueling outage at FNP, Unit 1. SNC reported it had performed a bare-metal visual examination around the 50 RPV lower head penetrations and on the RPV lower head surface surrounding the nozzles. SNC did not observe any evidence of RPV lower head material wastage or RPV lower head penetration leakage. During the fall 2004 refueling outage at FNP, Unit 1, SNC again performed a bare-metal visual examination of all 50 RPV lower head penetrations, and as noted in the January 27, 2005, NRC Integrated Inspection Report, no reactor coolant boundary leakage was observed.

Based on its review of SNC's responses to NRC Bulletin 2003-02, the NRC staff finds that FNP, Unit 1 has met the reporting requirements of the bulletin. Accordingly, TAC No. MC0538 is closed for FNP, Unit 1.

Sincerely,

/RA/

Robert E. Martin, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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Based on its review of SNC's responses to NRC Bulletin 2003-02, the NRC staff finds that FNP, Unit 1 has met the reporting requirements of the bulletin. Accordingly, TAC No. MC0538 is closed for FNP, Unit 1.

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Robert E. Martin, Project Manager, Section 1
Project Directorate II
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Joseph M. Farley Nuclear Plant, Units 1 & 2

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